

Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife

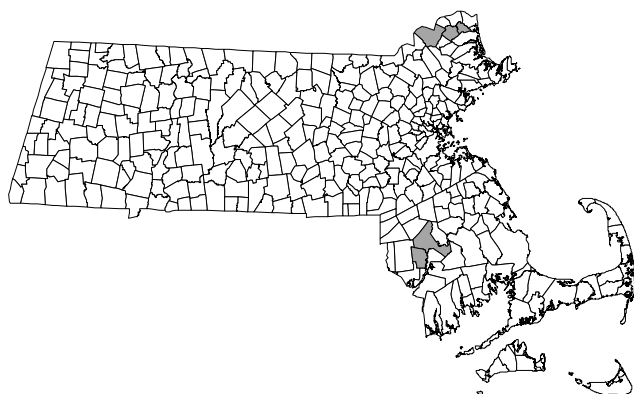
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www.state.ma.us/dfwele/dfw/nhesp

Description: Eaton's beggar-ticks is a globally-rare, slender, annual herb of tidal river shores that grows to a height of 70 cm. Its lance-shaped leaves are toothed, 4–12 cm long, and borne opposite one another on the stem. Occasionally the lower leaves will possess one or two lateral lobes. Its flowers are very small and are aggregated into groups that falsely resemble a larger flower, called capitula. The small, seed-like fruits, called cypsels, bear slender, barbed bristles that are capable of attaching to fur and clothing. These fruits, which beg a ride with unsuspecting passer-bys, are responsible for the common name of the genus *Bidens*.

Aids to Identification: Eaton's beggar-ticks is distinguished from closely related species by examining its leaves, capitula, and cypsels. The leaves are simple or lobed (but not divided) and are borne on stalks (petioles) 1–4 cm long. The capitula of Eaton's beggar-ticks are largely comprised of disk flowers. These flowers are tubular shaped. Ray flowers, like the white, flat, marginal flowers of the ox-eye daisy (*Leucanthemum vulgare*), are either absent or very short (under 5 mm long). Each capitulum of Eaton's beggar-ticks is made up of 7–30 flowers. The cypsels of this species are wedge-shaped, flat at the apex, bear two to four barbed bristles, and are longitudinally striate (and not warty).



Distribution in Massachusetts
1980-2006

Based on Records in Natural Heritage Database

Eaton's Beggar-Ticks

Bidens eatonii Fern.

State Status: **Endangered**

Federal Status: None



Holmgren, Noel H. *The Illustrated Companion to Gleason and Cronquist's Manual*. NY Botanical Garden. 1998.

Similar species: In Massachusetts, there are other species of beggar-ticks with simple or lobed (but not divided) leaves that occur in similar habitats as Eaton's beggar-ticks. Estuary beggar-ticks (*Bidens hyperborea*), another Endangered species, and smooth beggar-ticks (*Bidens laevis*) are species that occur in tidal river shore communities. Both of these species have leaves that lack petioles, at least near the middle and upper parts of the stem. Also, smooth beggar-ticks has capitula with comparatively large, yellow ray flowers, unlike the tiny ray flowers sometimes found on the capitula of Eaton's beggar-ticks. It is more difficult to tell purple-stemmed beggar-ticks (*Bidens connata*) from Eaton's beggar-ticks. This common and wide ranging species is frequent in non-tidal habitats, but also occurs along fresh tidal river shores. It usually has more flowers per capitulum (20–65, rarely up to 150) and has cypsels that are diamond-shaped in cross-section and are warty-tuberculate on the faces (viewed with 10× or greater magnification).

Habitat: Eaton's beggar-ticks occurs on fresh to brackish tidal river shores. It is normally found growing on wet, muddy substrates. The communities range from a narrow band of tidal muck along the river shore to an extensive estuarine marsh. Associated species in Massachusetts include Parker's pipewort (*Eriocaulon parkeri*), common water-purslane (*Ludwigia palustris*), wild rice (*Zizania aquatica*), water parsnip (*Sium suave*), common three-square (*Schoenoplectus pungens*), and saltmarsh-hemp (*Amaranthus cannabinus*). At one site in southern Massachusetts, purple stem beggar-ticks occurs with Eaton's beggar-ticks and hybrids between the two species can be found.

Range: Eaton's beggar-ticks occurs from Quebec, south to New York.

Population Status in Massachusetts: Eaton's beggar-ticks is presently listed under the Massachusetts Endangered Species Act as “Endangered”. All listed species are protected from killing, collecting, possessing, or sale and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. In addition to being rare in Massachusetts and throughout the New England Region, Eaton’s beggar-ticks is considered to be imperiled at a global scale. It is limited by its restricted range and its uncommon fresh-brackish estuarine habitat.

Management Recommendations: Eaton's beggar-ticks is a species of tidal habitats. Structures such as bridges and dams, that eliminate tidal influence, will likely have detrimental effects to Eaton's beggar-ticks by changing water salinities and nutrient cycling. In many places in the northeast, shoreline development, including docks and boat ramps, have impacted areas suitable for this rarity. As with many other species occurring in wetlands, invasive plants such as purple loosestrife (*Lythrum salicaria*) and common reed (*Phragmites australis*) threaten rare species by growing at densities capable of excluding other plants. Both of these species can occur in tidal habitats where Eaton's beggar-ticks would grow, and efforts to minimize their introduction and spread should be considered.

Flowers or Fruit Present

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Updated: October 2006

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for ‘endangered wildlife conservation’ on your state income tax form as these donations comprise a significant portion of our operating budget.